Health Care Financing

The rapid growth in medical expenditures for more than 35 years is as familiar as the increasing percent of the U.S. gross national product (GNP) devoted to medical care. Less well known are the reasons for this continual rise in medical expenditures. This paper provides a historical perspective of the rise in medical expenditures and discusses the role of health insurance and other economic factors in determining health care costs.

Before Medicare and Medicaid

Until 1965, spending in the medical sector was predominately private-80 percent of all expenditures were spent by individuals out-of-pocket or by private health insurance on their behalf. The remaining 20 percent of expenditures were paid by the federal government (8.4 percent) and the states (12 percent). Personal medical expenditures were $35 billion and represented approximately 6 percent of the U.S. GNP; that is, 6 cents out of every dollar spent was for medical services.

Effects of Medicare and Medicaid

In 1965, two major government programs, Medicare and Medicaid, were enacted, which dramatically increased the role of government in medical care financing. Medicare covered the aged and consisted of two parts: Part A was for hospital care and was financed by a Social Security tax on the working population; Part B covered physicians' services and was financed by both federal taxes (currently 75 percent) and by the aged paying a premium that covered 25 percent of the program costs. Medicaid was for the categorically or medically needy, which included indigent aged and families with dependent children receiving cash assistance. Each state administered its program, and the federal government paid, on average, more than half of the costs. As a result of Medicare and Medicaid, the federal government became a major payer of medical services.

The government estimates that national health expenditures will rise at a slightly higher rate in the coming decade as baby boomers become eligible for Medicare and new technology that improves quality of health services, but at a higher cost, continues to be introduced. It is estimated that by 2008 national health expenditures will exceed $2 trillion.

Medical Expenditures Increased

Medical expenditures consist of prices multiplied by quantity of services. The rise in medical expenditures can be explained by looking at the factors that lead to changes in medical prices and quantities. In a market system, prices and output of goods and services are determined by the interaction of buyers (the demand side) and sellers (the supply side) in a market. Changes in prices and output can be analyzed by examining how various interventions change the behavior of buyers and sellers. One such intervention was Medicare, which lowered the out-of-pocket price the aged had to pay for medical care. The result was a dramatic increase in the demand for hospital and physician services by the aged, leading to rapid increases in prices and, to a lesser extent, an increase in use of those services. Total expenditures increased because the higher prices multiplied by the greater quantity equaled a higher level of expenditures.

When costs, which underlie the supply of any service, increase, prices also increase. As hospitals tried to attract more nurses to care for the increased demands by the aged, they had to raise nurses' wages, which were then passed on in higher hospital prices. Similarly, government payments for the poor under Medicaid increased their demands for medical services. The result of increased demands for care, and higher costs of providing that care, was rapidly rising expenditures.

At the same time that the government was subsidizing the demands of the aged and the poor, the demand for medical services by the employed population was increasing. Stimulating the growth in private health insurance during the late 1960s and 1970s were the growth in incomes, the high marginal (federal) income tax rates (up to 70 percent),

and the high inflation rate in the economy. The high inflation rate was pushing more people into higher marginal tax brackets. Receiving additional income in the form of wages, and then paying federal, state, and Social Security taxes, left employees with less disposable income to spend. Instead of having the employer pay wage increases in after-tax cash, employees chose to have the employer spend those same dollars, before tax, to buy additional health insurance. Thus, employees' out-of-pocket medical expenses were paid with before-tax dollars rather than after-tax dollars. This tax subsidy for employer-paid health insurance stimulated the demand for medical services in the private sector and further increased medical prices.

Demand increased most rapidly for those medical services that were covered by government and private health insurance. Currently, only 5.5 percent of hospital care and 19 percent of physician services are paid out-of-pocket by the patient; some third party pays for the remainder. Patients had little incentive to be concerned with the price of the service when they were not responsible for paying a significant portion of the price. As the out-of-pocket price declined, the use of services increased.
The aged, who represent 12 percent of the population and use more medical services than any other age group, filled 40 percent of hospital beds. Use of physician services by the aged, the poor, and those with insurance also increased. Advances in medical technology led to a further stimulus in demands for medical treatment. New methods of diagnosis and treatment were developed; those with previously untreatable diseases could now have access to technology that offered hope of a recovery from illness. New diseases led to further demands on the medical system. These dramatic increases in third-party payments (both public and private), an aging population, and new technologies led to increases in the price and the quantity of medical services.

Providers (i.e., hospitals and physicians) responded to these increased demands for care. However, the method by which they responded unnecessarily increased the cost of providing medical services. When Medicare was enacted, hospitals were paid their costs plus 2 percent for serving Medicare patients. Hospitals, which were

predominantly not for profit, consequently expanded their capacity, invested in the latest technology, and duplicated facilities and services available in nearby hospitals. There were few incentives for hospitals to be efficient because they were reimbursed their costs. Hospital prices rose faster than any other medical service. Similarly, physicians had little cause for concern over hospital costs. Physicians wanted their hospital to have the latest equipment, so they would not have to refer their patients elsewhere (and possibly lose them); they would hospitalize their patients for diagnostic workups and keep their patients longer in the hospital because this was less costly *for the patient* covered by hospital insurance. Third-party payers generally did not cover outpatient services, which were less costly than hospital care.

In addition to the lack of patient incentives to be concerned with the cost of their care, and the similar lack of provider incentives to efficiently supply that care, the government imposed restrictions on the delivery of services. Under both Medicare and Medicaid, the U.S. government was not permitted to contract with organizations such as health maintenance organizations (HMOs) to deliver care on an annual capitation payment. Organized medicine was instrumental in having included in both Medicare and Medicaid the concept of free choice of physician. Organizations, such as HMOs, that preclude their enrollees from choosing any physician in the community violated the free-choice-of-physician rule and were unable to receive capitation payments from the government. Numerous state restrictions on HMOs further inhibited HMO development. These restrictions made it impossible for the government, and difficult for private insurers, to contract with closed panels of providers that were less expensive. The effect of increased demands, limited patient and provider incentives to search for lower-cost approaches, and restrictions on the delivery of medical services resulted in rapidly rising prices, increased use of services, and, consequently, greater medical expenditures.

Government Response to Rising Costs

As expenditures under Medicare and Medicaid increased, the federal government faced limited options: (1) it could raise Social Security and income taxes on the non-aged to

continue funding these programs, (2) it could require the aged to pay higher premiums for Medicare and increase their deductibles and copayments, or (3) it could reduce its payments to hospitals and physicians. Each approach would cost the Administration and Congress political support from some constituency, such as employees, the aged, or health services providers. The least politically costly options appeared to be to increase taxes on the non-aged, and to pay less to hospitals and physicians.

The federal and state governments also used additional regulatory approaches to control these rapidly rising expenditures. Medicare utilization review programs were instituted, and controls were placed on hospital investments in new facilities and equipment. These government controls proved ineffective as hospital expenditures continued to rise rapidly throughout the 1970s. The government then limited physician fee increases under Medicare and Medicaid, with the consequence that many physicians refused to participate in these programs. Access to care by the poor decreased, and as physicians refused to participate in Medicare, many Medicare patients had to pay higher out-of-pocket fees to be seen by physicians.

The 1980s

By the beginning of the 1980s, no political consensus existed on what should be done to control increases in Medicare hospital and physician expenditures. Private health expenditures also were continuing their rapid rise. However, by the mid-1980s strong cost-containment pressures were being imposed on both the Medicare and private medical sectors.

Several events occurred in the early 1980s, which brought major changes to the medical sector. The HMO legislation, which was enacted in 1974, began to have an effect in the 1980s. In 1974, President Nixon wanted a health program that would not increase federal expenditures. The result was the HMO Act of 1974, which legitimized HMOs and removed restrictive state laws retarding the development of federally approved HMOs. However, many HMOs did not seek federal qualification because

certain restrictions would have been imposed on them that would have caused their premiums to be too high, and thus not be price competitive with traditional health insurers. These restrictions were removed by the late 1970s, and the growth of HMOs began in the early 1980s.

To achieve savings in Medicaid, in 1981 the Reagan administration removed the free choice of provider requirement for Medicaid enrollees; states were able to require their Medicaid population to participate in closed provider panels. The states then were able to contract with HMOs and accept bids from hospitals for care of their Medicaid patients. (The free choice requirement remained in place for the aged until the mid-1980s, when the aged were permitted to voluntarily join HMOs.)

Federal subsidies, which were enacted in 1964 to expand the number of medical school spaces, began to have their effect on the supply of physicians: the number of physicians expanded from 145 per 100,000 people in 1965 to 200 per 100,000 in 1980, and reached almost 260 per 100,000 by 1997. The increased supply of physicians dampened increases in their fees, made attracting physicians easier for HMOs, and thus for the HMOs to expand.

A new Medicare hospital payment system was phased in during 1983. Hospitals were no longer to be paid according to their costs; fixed prices were established for each diagnostic admission-referred to as diagnosis-related groups (DRGs) -and an annual limit was set on the increase in these fixed prices per admission each year. DRG prices changed hospitals' incentives. Because hospitals could keep the difference between their costs and the fixed DRG price, they had a new incentive to reduce their costs for caring for Medicare patients and to discharge them earlier. Consequently, the length of stay per admission fell. Hospitals also became concerned with physician practice behavior that increased the hospitals' costs of care.

During the early 1980s, important events also were occurring in the private sector. The new decade started with a recession, and as the United States began to recover, the dollar was very strong relative to other currencies. To survive the recession and to remain competitive internationally, business looked to reductions in their labor costs. Because health insurance was the fastest-growing labor expense, business began to pressure health insurers to better control both the use and cost of medical services. Competitive pressures forced insurers to increase the efficiency of their benefit packages by including lower-cost substitutes to inpatient care, such as outpatient surgery. Increasing deductibles and copayments increased patients' price sensitivity. Requiring patients to receive prior authorization before admission and then having the patients' length of stay reviewed while they were in the hospital decreased hospital use. These actions greatly reduced hospital admission rates and lengths of stay. Between 1970 and 1990, admissions per 1,000 people in Blue Cross plans declined from 127 to 90. Admissions rates have continued to decline, now less than 70 per 1,000 people. As a result of the federal DRG payment system, the above private programs, and a shift to the outpatient sector facilitated by changes in both anesthetic and surgical techniques, hospital occupancy rates declined from 76 percent in 1980 to less than 60 percent today. At the same time, an increase in the supply of physicians caused fees to decrease.

The preconditions for price competition were in place: suppliers had excess capacity, and consumers were interested in reducing their employees' medical expenses. The last necessary condition for price competition occurred in 1982 when the U.S. Supreme Court upheld the applicability of the antitrust laws to the medical sector. Successful antitrust cases were brought against the American Medical Association (AMA) for its restrictions on advertising, a medical society that threatened to boycott an insurer over physician fee increases, a dental organization that boycotted an insurer's cost-containment program, medical staffs that denied hospital privileges to physicians because they belonged to an HMO, and hospitals whose mergers threatened to lessen price competition in their communities.

The applicability of the antitrust laws, excess capacity among providers, and employers' and insurers' interest in lowering medical costs brought about profound changes in the medical marketplace. Traditional insurance plans lost market share as managed care plans --- which control utilization and limit access to hospitals and physicians ---grew. Preferred provider organizations (PPOs), which included only physicians and hospitals that were willing to discount their prices, were formed. Employees and their families were offered price incentives, in the form of lower out-of-pocket payments, to use these less-expensive providers. Large employers and health insurers began selecting PPO providers based on their prices, use of services, and outcomes of their treatment.

Although the federal government agreed to pay HMOs a capitated amount for enrolling Medicare patients in the mid-1980s, less than 10 percent of the aged voluntarily participated. In 1992, the federal government also changed the method of paying physicians under Medicare. A national fee schedule was adopted and volume-expenditure limits were established to limit the total rise in physician Medicare payments. Further, physicians could no longer choose to accept the Medicare fee for some Medicare patients but not others; physicians now had to participate for either all their Medicare patients or none of them. Medicare patients represent such a significant portion of a physician's practice that few physicians did not participate. Consequently, they accepted Medicare fees. Thus, the main approaches the federal government uses to contain Medicare expenditures are price controls and expenditure limits on payments to hospitals and physicians for services provided to Medicare patients.

In the 1980s, a disruption in the traditional physician-patient relationship occurred. Insurers and HMOs use managed care review to:

- control patient demand;
- emphasize outcomes and appropriateness of care
- limit the patient's access to higher-priced physicians and hospitals by not including them in their provider network

- use case management for catastrophic illnesses
- substitute less-expensive settings for more costly inpatient care; and
- affect the patient's choice of drugs by determining which drugs are on the insurer's formulary.

The use of cost-containment programs and the shift to outpatient care has lowered hospital occupancy rates. The increasing supply of physicians, particularly specialists, has left hospitals with excess capacity. Several more years will pass before the number of hospitals is reduced, and increases in demands for care exceed the available supplies of hospitals and physicians. Until then, hospitals and physicians will continue to be subject to intense competitive pressures.

A change in employee incentives has been an important stimulant to competition among HMOs and insurers. As employers require employees to pay the additional cost of more expensive health plans, employees are choosing the lowest-priced plan. Health plans now compete for enrollees primarily on the basis of their premiums and provider networks.

The 1990s

As managed care spread throughout the United States during the 1990s, the rate of increase in medical expenditures lessened. Dramatic reductions occurred in the use of hospitals, and both hospitals and physicians gave large price discounts to be included in an insurer's provider panel. These cost-containment approaches lowered the rate of increase in medical expenditures. However, as price competition reduced medical costs, some of its methods came under attack. The public wanted greater access to care, particularly in the form of referrals to specialists. As a result, many health plans that had concentrated on closed panels and strict limitations on provider choice, began to expand their offerings to include Point of Service plans, in which enrollees could opt out of their health plan network if they paid a higher copayment.

To further control costs and expand the participation of Medicare beneficiaries in managed care plans, the Balance Budget Act (BBA) was enacted in 1997. The BBA created the Medicare+Choice program, allowed the formation of Provider Sponsored Organizations and a demonstration of Medical Savings Accounts. The BBA also reduced payment levels in most of the country below the rate of increase of medical costs and imposed new administrative burdens. In addition, the BBA called for "risk adjustors", which beginning in 2000 adjusted payment levels to reflect the relative health status of enrollees. These changes have contributed to the instability of some Medicare managed care plans and will likely be addressed in the coming years.

The 2000s

The pressures increasing demand will cause medical expenditures and premiums to resume a more rapid increase in the foreseeable future. As the population ages, technological advances improve early diagnosis, and new methods of treatment become available, demands for medical services will increase. Governmental regulations mandating minimum care requirements and freer access to specialists will increase costs. New technology is believed to be the most important force behind rising expenditures. For example, the number of people having coronary artery bypass surgery has increased dramatically, as has the diffusion of new equipment, such as the number of hospitals with magnetic resonance imaging (MRI). The costs of providing medical services also will increase as more highly trained medical personnel are needed to handle the increased technology, and as wage rates increase so as to attract more nurses and technicians to the medical sector.

Thus, even though the medical sector has become more efficient and price competitive, increased demands and higher costs of providing medical services will force medical expenditures higher. The past approaches to achieving large cost reductions, decreased hospital use, and price discounts will not produce similar savings in the future. Instead, health plans and medical groups will have to develop more innovative, less costly ways of managing patient care. Innovative approaches to reducing health

services costs are more likely to occur when price incentives exist than in a regulated system. Any regulatory approach that arbitrarily seeks to reduce the rate of increase in medical expenditures will have to result in reduced access to both medical care and new technology.

Health Insurance Organizations

It is clear that modern healthcare can be financed only in the context of health insurance or related risk-sharing mechanisms. Most Americans have a mechanism to finance their healthcare. Most working families receive health insurance as an employment benefit. The aged participate in Medicare, a universal government health insurance, and most of them have supplementary private insurance. Some, but not all, poor receive Medicaid, a state and federal insurance. A few people purchase health insurance individually, or through groups other than employment. Coming from so many different sources, it is not surprising that the insurance varies widely in the details of the protection it provides, or that some people fall through the cracks. About 15 percent of the population has none of these mechanisms, and additional millions had insurance that was inadequate for their needs.

About 2,000 different companies administer the coverage itself. A much smaller number are economically important in geographically specific marketplaces. These are mostly large voluntary HMOs, Blue Cross and Blue Shield Plans, and commercial insurance companies who administer many different kinds of programs for employers and government. Technically, many of these programs are not insurance because the employer or the government accepts the financial risk for the group in question, and the health insurance organization acts as intermediary, seeing that care is provided according to the contracts and pays the providers. Medicare is the largest single example. The federal government holds the insurance risk, through the Medicare Trust Fund. Intermediary insurance companies administer the plan in each state. There are often two intermediaries, one for Part A, covering mostly hospital expenses, and one for Part B, covering medical and other practitioner expenses. Similar complexities describe

the private market. Large employers often self-insure their groups. They frequently turn to intermediaries to administer the healthcare benefit.

Health insurance companies initially identified their function as bearing risk, marketing, subscriber billing and service, and claims payment. They often avoided any selection of providers and accepted the providers' judgment on both appropriate treatment and fair price. The Medicare Act Preamble, which called for "reasonable costs" to pay hospitals and "usual, customary and reasonable" fees for physicians, was widely accepted as a model. Traditional health insurance still fulfills these functions. Under pressure to improve cost performance, managed care plans added negotiation of fees and various mechanisms to ensure quality and minimize cost. The large intermediaries offered these and even pioneered in their development, so that they now offer a range of products and services from traditional health insurance to HMOs, with several risk-sharing alternatives.

However necessary it might be, insurance itself contributes to the increase in costs. Insurance divorces the payment mechanism from the point of service and removes the economic consequence of decisions by both the caregivers and the patients. When the premium is paid by employers and is subject to tax preferences, the consequence is doubly or triply removed. The issue is how to design insurance that simultaneously provides the necessary financial protection and minimizes the inflationary consequences of the divorce.

Devices to achieve cost control have become increasingly sophisticated in the past 20 years, since the passage of the HMO Act in 1973. They fall into three major categories: limits on payment, limits on provider selection, and provider risk sharing.

1. Limits on Payment

- To patients. Deductibles delay insurance participation until the patient has spent a specific amount and copayments put the patient at some financial risk at each step of care. The deductible is a standard feature of catastrophic or major medical insurance contracts, where it serves to rule out routine medical expenses. Copayments are often a feature of indemnity insurance which pays cash benefits for specific services received, up to a limited amount for each healthcare event. They are also used in HMOs to reduce premiums or discourage unnecessary or inappropriate use.

- To providers. Fee-for-service payment to providers discounted below what is perceived to be the market rate. This approach has been routine in Medicaid and is used in managed care financing. Congress restricted Medicare payments to hospitals and physicians in the 1990s.

2. Limits on Provider Selection

    - Most advanced healthcare financing plans limit the patient to a panel of providers approved in advance. Preferred provider organization (PPO) and HMO contracts are designed around this feature. Point-of-service (POS) plans offer unlimited choice of provider with substantial financial incentives for the patient to use panel providers.

3. Provider Risk-Sharing

    - Risk-sharing plans use financial devices to encourage providers to eliminate unnecessary services. They include bundled prices such as diagnosis-related groups (DRGs), where payment is based on the patient's condition rather than what was done for each patient. They also include a variety of payment mechanisms, such as withholding a fraction of the payment to distribute if utilization targets are met or providing other incentives for meeting targets. _

- In its most advanced form, risk sharing pays providers capitation, a fixed dollar amount for each month the patient remains under contract. This requires an explicit selection of provider by the patient, even though the patient may not seek care at all. The provider, usually a hospital-physician group combination, accepts full risk for managing the patients' care.

The most sophisticated insurance products use several of these devices simultaneously. HMOs frequently combine copayments, provider selection, bundled payment, and provider capitation. POS plans offer the patient a choice of provider for a price but use copayments deliberately to channel care to selected providers with whom they have risk-sharing contracts. Even traditional contracts have increasingly elaborate devices to influence both patient and provider behavior. Because the individual customer or group of customers can select the product they want, each successful product must attract a reasonable share of the market. No product will be perfect; there are real choices in front of the customer. The most important choices center around provider panel and price considerations. Obviously the more attractive the panel is, the larger market share it will attract at a given price, and the more effective at cost control the panel is, the lower price it can offer. Panels that are both attractive and cost-effective will attract large numbers of patients and achieve further economies through their size.

The health insurance market has undergone significant changes in the 1980s and 1990s and further rapid change is likely through the 2000s. All forms of cost-controlling products are growing in market share. The more flexible POS products are growing most rapidly. In some cities they have achieved substantial market shares, and where this has occurred, healthcare has been revolutionized and healthcare organizations have flourished. When providers must meet cost and quality standards to be selected, and when they share in the risk that costs will exceed premiums paid, strong incentives are established to change patterns of practice and seek new economies. The providers' energies are turned to devising lower-cost ways to achieve equivalent or better quality

of care. They reorganize the array of existing hospitals, physician practices, other professionals, and other provider organizations to meet that challenge.

Choices to Make

Although the United States spends more on health services than any other country, there is still a scarcity of funds to provide for all of our medical needs and all our population groups, such as the uninsured and those on Medicaid. Thus, choices must be considered.

The first choice that society must consider is how much of its scarce resources should be spent on medical care. What approach should be used for making this choice? Should the decision be left to individuals to determine how much of their income they want to spend on health services, or should the government decide on the percentage of GNP that should go to health services?

The second choice is how to provide medical services. Would competition among health plans, or government regulation and price controls, achieve greater efficiency in the provision of medical services?

The third choice is how rapidly medical innovation should be introduced. Should regulatory agencies evaluate each medical advance and determine whether their benefits exceed their costs, or should the evaluation of those costs and benefits be left to the separate health plans competing for enrollees?

The fourth choice is how much to spend on those who are medically indigent and how to provide their care. Should the medically indigent be enrolled in a separate medical system such as Medicaid, or should they be provided with vouchers to enroll in competing health plans?

These choices will not be easily resolved, but can be better understood with an awareness of the consequences of each approach, such as which groups benefit and which groups bear the costs. These choices will be further complicated by advances in biotechnology and medical practices and how we address the myriad ethical issues that will undoubtedly arise.

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